XXVIII.—*A Visit to Babel Island, the Nesting-place of* Puffinus tenuirostris brevicaudus *Gould.* By C. F. Cole.

[The following account of the Mutton Bird rookery by Mr. C. F. Cole has been communicated by Mr. G. M. Mathews, M.B.O.U.]

Last year, on November 23, with eleven other members of the Royal Australasian Ornithologists' Union, I visited Babel Island. Probably the largest Mutton Bird rookery in the Southern Hemisphere is upon this island. It is one of the Furneau group, lying some two and a half miles off the east coast of Flinders Island, situated in the Bass Strait between the mainland of Australia and Tasmania. These islands are under the control of the Tasmanian Government.

During the birding-season 1912, I am told that some 500,000 birds were killed, cured, and exported from this island, principally by the half-cast aboriginal population inhabiting Barren Island and adjacent islands in the Strait. The site selected by these birds for nesting purposes is a peak rising some hundreds of feet above sea-level. The larger portion of the rookery faces the west and south-west. The nature of the soil upon this island is chiefly a loose gritty sand, easily scratched out by the birds. The rookery is covered, particularly in the higher portions, with a tough tussocky grass common to the islands of Bass Strait.

On the west and south-west sides, where the ground starts to slope upwards, the rookery begins towards the base, extending right to the top and around the peak, the ground being honeycombed with countless breeding burrows. After an early tea, and everything being made snug for our night's stay, the lower portion of the rookery was visited and numerous burrows examined; the result being that many contained fresh eggs, no doubt deposited during the previous night.

Having collected sufficient eggs for breakfast, and the sun having dipped below the horizon, the attention of members present was turned towards the first incoming

birds, which began to make their appearance at dusk. The birds, circling high over that part of the rookery where their chosen burrow was situated, gradually reduced their height, and, skimming over and around the rookery, uttering their short purring notes, suddenly alighted close to the opening of the burrow, which they immediately entered.

If interfered with, or if an attempt was made with the hands to prevent them entering, they would inflict nasty skin-wounds with the sharp curved unguicorn at the tip of the upper mandible.

Temporary darkness setting in before the rising of the moon, the swish of wings, the purring notes, the flapping of wings upon the ground, and the scrambling of the birds to enter the burrows were the predominating sounds. The moon eventually made its appearance above the crest of the rookery peak and exposed to view thousands of these birds, which, as they kept crossing and recrossing the moon's disc, made an impressive sight.

Although the eve of November 24 is the usual date for the great incoming flight of these birds to deposit their eggs, thousands must have been laid in the burrows of the Babel Island rookery during the night of November 23.

Securing and examining many of the birds before they entered the burrows, I found them to be in every case the female bird, each carrying the egg well down in the oviduct. Inserting the tip of one of my fingers slightly into the cloaca I could distinctly feel the hard shell of the egg. Returning to camp with four female birds, each carrying an egg well down in the oviduct, I placed them in a deep barrel used by the bird-hunters for salting purposes, the depth of the barrel preventing their escape. Being awakened next morning at daybreak by the cry of numerous Mutton Birds, I hastily arose, to find thousands of them departing from the rookery.

On visiting the rookery after breakfast I found that a large percentage of the burrows examined contained an egg, and each was occupied by a male bird. Mentioning this

fact later on to our boatman, an old birding-hand and an intelligent half-caste aboriginal, by name Thomas, he informed me that the female comes in during the early part of the night to deposit her egg, and that the male bird, coming in later and towards daylight, takes the place of the female upon the egg during the day, and that the outward flight of birds witnessed on the morning of November 24 were females leaving the rookery, having deposited their eggs the night previous.

This bears out my own observations. He, Thomas, also informed me that the male bird did not sit upon the egg during the daytime when incubation started.

Having dissected at different times birds taken from the burrows between the latter end of November and the first week in the new year, I found all birds to be females, again bearing out Thomas's observations.

Upon asking him whether the female bird sat right through during the period of incubation, or if the male bird relieved her during the night, he could not say, but felt certain that the male bird came in during the night and fed the female.

Asking Thomas how he knew the male from the female bird, he quickly drew forth a bird from its burrow, turned the bird over, and at once diagnosed the bird as a male. The morning following the depositing of an egg overnight, if the bird is a female, the cloaca or entrance to the oviduct is swollen and moist. If the bird is a male the vent is dry and normal. If a female and carrying the egg in the oviduct the sex can be detected by feeling with the fingers. By dissection I proved him to be correct.

Upon returning to camp I examined the female birds placed in the barrel overnight, expecting to find the egg deposited, but the result was negative—the egg still being in the same position in the oviduct. But the cloaca was not so swollen as when examined the evening previous.

In our hurry to get away from the island owing to heavy weather approaching, these birds were forgotten and left in the barrel. But I am thankful to say that they were not left to starve, several other members of the R. A. O. U.

visited the island and liberated them on Monday afternoon, November 25.

The member who liberated them stated that no eggs had been deposited in the barrel. There is no doubt whatever that these four birds would have deposited their eggs during the evening of the 23rd if they had not been placed in captivity. I think there is sufficient evidence to show that if unfavourable conditions are brought about this bird has the power to withhold the depositing of an egg upon or about a certain date.

Whether the four birds confined had the physical power of controlling those functions responsible for the expulsion of the egg from the oviduct, or such functions became semi-paralysed for the time through fear combined with being confined in an unsuitable place, is known only to the captives themselves.

No doubt after incubation starts the male returns each night to the burrow and feeds the female bird, and she leaves the burrow for exercising purposes, the male taking her place upon the egg in her absence. I have dissected in my time about 100 birds, taken from the burrows during the daytime, all birds being females—*i. e.* after incubation started.

Indications point to the fact that after the egg is deposited the male bird takes the place of the female in the burrow during the day following, purely to protect the egg before the female bird starts to sit in earnest to incubate the egg.

This practice is common with many male birds of the same nesting habits, particularly those that deposit more than the one egg. The male bird simply stands over the egg in the nest until the last egg has been deposited. When the female starts incubation in earnest, in some cases the male protects the nest and egg by remaining close by and attacking any intruders. With Cuckoos they simply take possession of the nest until the egg is deposited or placed therein. After careful observations for years I have noticed this. The male bird takes his share of incubation in many instances, but not to generate heat, simply to retain the same while the female is away from the nest feeding or exercising.

XXIX.—*Corrections to the 'Catalogue of the Collection of Birds' Eggs in the British Museum.'* By the Rev. F. C. R. Jourdain, M.A., M.B.O.U.

The first of the five volumes which comprise the 'Catalogue of Eggs' was issued in 1901, and the fifth at the close of the year 1912. During that period, with the exception of one or two typographical corrections, no list of errata has been published. The present contribution applies only to the Palæarctic eggs, and is not intended to be exhaustive, as many of them have not yet been critically examined by me; but it is hoped that it may prove useful to oologists.

Although the British Museum collection is by far the largest in the world as regards the number of *specimens*, it is much inferior to that of Herr Nehrkorn in species. In the volumes before us 3890 species are recorded and 69,828 specimens; but the Nehrkorn collection contains no fewer than 5140 species and subspecies, leaving a balance in favour of the private collector of no fewer than 1550 species! Considering the widespread interest which exists in England in the study of oology, is it too much to hope that, with a little encouragement from the authorities of the British Museum, our National collection might be raised to the same level as that which has already been attained by a single private collector?

The 'Catalogue' would, of course, have been infinitely more valuable if it had contained references to those species which are not represented in the collection as well as those of which the Museum has specimens; but this would have entailed a very great increase in the bulk and cost of the work, and was perhaps impracticable. There are, however, other defects in the plan of the work which could easily have been avoided. Thus, with a few exceptions (chiefly confined to the earlier volumes of the series), there is no indication of the number of eggs in the clutch, and whether any single item in the list refers to a number of eggs gathered together from various sources on a given day or

forms a perfect clutch. In one species no fewer than a dozen complete sets are catalogued, but they are not distinguished in any way from other "odd lots" of eggs, although the addition of the letter (c.) in small type to the number of eggs would have conveyed this information. The measurements also as given in this work are almost useless, and it would have been far better to measure accurately a stated number of specimens and give the average thus obtained together with the maxima and minima. For such purposes, the metric system is much better adapted than that of fractions of the inch, and enables comparison to be made at once with the Continental literature of the subject.

In many cases (especially in the earlier volumes) the eggs of allied forms are grouped together under one head, but, as these can in most cases be separated by the localities given, it has not been thought necessary to further indicate them, and the present paper is chiefly devoted to erroneous identifications and mis-statements. Purely nomenclatural questions do not come within the scope of this article.

Vol. I. (1901).

P. 33. Under the heading *Caccabis chukar* (J. E. Gray) are placed five clutches of Partridges' eggs taken by Krüper, Seebohm, and W. H. Simpson on the Greek mainland near Athens, Delphi, and Tzipiana. Here *C. chukar* does not exist, but is replaced by the form of *C. saxatilis* which inhabits the southern part of the Balkan peninsula (*C. saxatilis græca*). This error was pointed out by Herr Otmar Reiser in 1905 in his 'Materialien zu einer Ornis Balcanica,' iii. p. 408. Curiously enough, the distinctions between the eggs of these two species are described and commented on; but their significance seems to have been altogether overlooked by the writer of the 'Catalogue.'

P. 71. *Turnix sylvatica* (Desf.). The eggs obtained from Favier by Seebohm were laid in confinement at Tangier.

P. 80. The statement that "the eggs of all Pigeons are white when first laid and that discoloration takes place after incubation has commenced" is not borne out by facts. Perfectly fresh eggs of *Œna capensis* are a brownish cream-colour.

P. 141. The egg of *Colymbus pacificus* is figured on pl. xi. fig. 6, and not fig. 5 as stated (see also pp. 149 and 250).

P. 147. *Procellaria pelagica* L. Four eggs from the Blasket Isles are said to have been taken on *April* 26. Mr. W. H. Turle, who took the eggs in question, writes in the 'Ibis,' 1891, p. 11, that he obtained a good many eggs on Irishnabro in the Blasket group in *the last week of May*. No Storm-Petrel has eggs as early as April in the British Isles. The eggs are marked in pencil 4/26/89, but Turle's set-marks are rarely intelligible.

P. 186. *Sterna dougalli* Mont. Three eggs ascribed to this species from Glashedy, Ireland (H. Saunders), and probably all, or nearly all, the eggs of American origin in the Museum, are not those of the Roseate Tern at all. Two eggs from the Crowley bequest are also very dubious. Those from Wales and the Farnes are, however, genuine. The statement that "the eggs of the Roseate Tern resemble those of the Common and Arctic Terns and pass through the same variations of shape and colour" is quite erroneous, and is founded on unreliable material.

P. 187. *S. cantiaca* Gm. Six eggs from Lake Sinöe are said to have been taken on May 9, but Seebohm's visit to that locality was paid on 9 June, 1883, and the eggs are marked with that date.

P. 220. *Larus glaucus* Fab. Under this heading is catalogued a series of erythristic eggs of the Herring-Gull, *L. argentatus*, taken at Vardö by Nordvi (from the Seebohm collection). They were ascribed to *L. glaucus* by Seebohm and figured by him as such, but it has been clearly shown by the late H. J. Pearson and others that the species which produces these red eggs

in Norway is *L. argentatus*, and that *L. glaucus* does not breed there at all. Another red egg (not yet catalogued) is marked "*L. argentatus*," to which a (?) has been added, but it is included among the eggs of *L. glaucus*. The statement on p. 220 that the erythristic type is "quite unique among Gulls' eggs" is also incorrect, as similar eggs have been recorded from *L. ridibundus*, both in Scotland and Germany, and also from *L. marinus*. Other eggs in the collection from Vardö are really those of *L. marinus*.

P. 225. *Megalestris catarrhactes* (L.). Three eggs from the Seebohm collection are stated to have been taken by W. Dunn on the Orkney Islands. There is, however, no reason to believe that this species has ever bred there.

P. 227. *Stercorarius crepidatus* (Banks). An egg from Lundegode, Finmark, is said to have been taken on Oct. 7! It is, however, marked 7.10.57, which surely means July 10, 1857.

Vol. II. (1902).

P. 20. *Ochthodromus geoffroyi* (Wagl.). The eggs figured and described as of this species are those of *Rostratula capensis* (see the 'Ibis,' 1905, p. 61). This also applies to the eggs mentioned on p. 347.

[P. 77. *Glareola pratincola* (L.). It is questionable whether the eggs obtained by Mr. S. Doig at the Eastern Narra, Sind, belong to this form. More probably they should be catalogued under *G. orientalis*.]

P. 111. *Pyrrherodias purpurea* (L.). The eggs obtained by Mr. W. D. Cumming were not taken at Fao as stated, but at Koweit, on the Persian Gulf, and are so marked by the collector *.

* Mr. C. B. Rickett has also pointed out ('Ibis,' 1905, p. 65) that the two oviduct eggs, catalogued as *Demiegretta sacra*, should be entered under the heading of *Herodias eulophotes* Swinh.

P. 138. *Cygnus cygnus* (L.). Two eggs from the Seebohm collection, stated in the 'Catalogue' to come from "Europe," are marked North Iceland.

P. 148. *Anser anser* (L.). With regard to the two eggs catalogued from "S.W. Spain (L. H. Irby)," it is stated in a footnote that Colonel Irby makes no mention of these eggs in the 2nd edit. of his 'Ornithology of the Straits of Gibraltar.' The writer has evidently overlooked Colonel Irby's paper in the 'Ibis' for 1879, pp. 345–6, where it is stated that two Geese were seen on the Laguna de la Janda in May 1876, and that seven or eight eggs were brought into Gibraltar later from the same place. "There is little doubt that the birds had been slightly wounded and [were] unable to migrate."

P. 149. *A. erythropus* (L.). The egg from Finland (Tristram coll.) is too large for this species, and, if the locality given is genuine, is probably an egg of *A. fabalis*.

P. 149. *A. fabalis* (Lath.). Four eggs from Iceland (three from the Seebohm collection and one from the Crowley bequest) are erroneously ascribed to this species, which has never been known to breed in Iceland. It has been customary for Icelandic collectors to apply the name "*A. segetum*" to the common Gray Goose of the country, which is the Grey-lag, *A. anser*, and probably the eggs in question belong to this species, but *A. albifrons* and apparently *A. brachyrhynchus* also breed in Iceland.

P. 161. *Casarca casarca* (L.). Two single eggs, separately catalogued, from the Salvin and Tristram collections, are part of a clutch of four eggs taken near Ain Djendeli (see 'Ibis,' 1859, p. 362; Ooth. Wolleyana, ii. p. 530).

P. 178. *Marmaronetta angustirostris* (Ménétr.). "Runilla," near Seville, which is given as a locality for this species, is really the Spanish name for this Duck, which has been written by Ruiz on the eggs.

P. 179. *Netta rufina* (Pall.). Three eggs from Zana (Tristram and Salvin collections), separately catalogued, form part of a single clutch of seven eggs (see Ooth. Wolleyana, ii. p. 582).

P. 189. *Henicometta stelleri* (Pall.). There is no satisfactory evidence of the breeding of this species in Norway, and the specimens recorded should be marked with a query.

P. 192. *Erionetta spectabilis* (L.). Six eggs from the Crowley bequest (S.W. Greenland) are of very doubtful authenticity, and differ considerably from genuine eggs of this species. They should be marked with a query.

P. 201. *Phalacrocorax desmaresti* Payr. An egg from the Tristram collection is stated to come from the "River Volga." This locality must be erroneous, as Shags are exclusively marine breeders, and, according to Nordmann, rarely visit the Black Sea, while east of the Caucasus they are unknown.

P. 224. *Vultur monachus* (L.). The egg from Magdala (Tristram collection) was obtained from a nest among rocks in February (see 'Ibis,' 1865, p. 245). The bird was flushed from the nest, but not obtained, while the egg is to all appearance that of the Griffon Vulture, and the nature of the site and date of nesting confirm this view. Probably the bird was an unusually dark Griffon. (Some doubt is also attached to the egg from El Kantara, obtained from Loche, which was apparently marked "*auricularis*" and subsequently altered to "*cinereus*.") Tristram states that a colony of *Otogyps nubicus* exists near El Kantara ('Ibis,' 1859, p. 282). No specimens of either species were obtained by him in Algeria.

P. 235. *Circus cyaneus* (L.). The eggs catalogued under this head from Blackwater, Dorset, are marked "*C. pygargus*" by the finder, and are much more likely to belong to the latter species.

P. 238. *C. pygargus* (L.). The three eggs from Ventnor, taken on May 30 and July 2, 1875, formed part of one

clutch of four eggs, though here separately catalogued (see 'Zoologist,' 1875, pp. 4654, 4658). Five eggs from near Berlin, taken by Dr. Holland and marked by him "*cyaneus*," are here catalogued under "*pygargus*."

P. 239. *C. macrurus* (S. G. Gmel.). Apparently the eggs ascribed to this species from the Seebohm collection are so designated solely because they are spotted and blotched with brownish markings, though the series includes specimens marked by the collectors as *cyaneus* and *pygargus*. In the case of birds like the Harriers, whose eggs so nearly resemble one another, this proceeding is quite unjustifiable.

P. 239. *C. æruginosus* (L.). The locality "near Oxford, July," given with an egg presented by Mr. H. K. Swann, has been known to be unreliable for nearly twenty years. The statement was withdrawn in the 'Zoologist,' 1894, pp. 268, 304, etc., but still remains uncorrected in the 'Catalogue.'

P. 254. *Buteo desertorum* (Daud.). Under this head are grouped the eggs of two distinct species: three clutches of the eastern form of the Common Buzzard, *B. buteo desertorum*, and eggs from three sources of the North African race of the Long-legged Buzzard, *B. ferox cirtensis* Lev.

P. 264. *Aquila heliaca* Sar. The egg from Mt. Edough, nr. Bône, Algeria, may possibly be that of *A. rapax belisarius*, which undoubtedly breeds there. The evidence of the breeding of *A. heliaca* and *A. adalberti* in N. Africa is very unsatisfactory.

P. 268. *Aquila maculata* Gm. The series of eggs catalogued under this heading is in some confusion, and obviously includes eggs of both species of Spotted Eagle. Thus a clutch of two eggs from Parnassus, taken 23 April, 1875, by Krüper, and marked by him "*A. nævia*," is evidently the Lesser Spotted Eagle. The eggs from Tunisia should also be queried in the absence of any proof as to which form breeds there.

P. 270. *Eutolmaëtus fasciatus* Blyth. The egg from Gilead, May 2 (Tristram coll.), is that of *Circaëtus gallicus*, and the maximum measurements given must be modified accordingly.

P. 299. *Falco barbarus* L. The two eggs from Djebel Dekma, taken 8 April, 1857, and separately catalogued, form part of a single clutch of three eggs (see 'Ibis,' 1859, p. 187).

P. 299. *F. feldeggi* Schl. Two eggs from Russia (Crowley bequest) and two sets from the R. Volga (Seebohm coll.) are erroneously ascribed to this species, and should have been catalogued under *F. cherrug*. This error has been pointed out by Herr O. Reiser ('Ornis Balcanica,' iii. p. 351).

P. 336. *Athene glaux* (Sav.). The extraordinarily large egg from the old collection and without data is almost certainly that of *Strix flammea*.

P. 353 (Appendix). *Limosa limosa* (L.). Under this heading is catalogued a supposed egg of this species from the Orkneys (Tristram coll.)! It is almost needless to say that no species of Godwit has ever been found breeding in the Orkneys, and an examination of the egg in question shows it to be a lightly marked and prematurely laid Lapwing's egg.

Two eggs from Bodö, Norway (Tristram coll.) are also catalogued here, although only the Bar-tailed species breeds there. A reference to Tristram's 'Catalogue of Birds' shows that the bird shot by him at Bodö was, as might be expected, *L. lapponica*.

P. 373. *Plegadis falcinellus* (L.). It is not credible that the eggs of this species were taken at Sarepta in South Russia in *December* as stated.

[Misprints of less importance also occur in this volume: 'Lucas' for 'Lucar' (p. 43, line 5 from below); 'Swake' for 'Snake' (p. 46, l. 8 from above); 'Ringley' for 'Singley' (p. 283, l. 18 and 19 from below. 'Myvatn' is usually written as two words, and the name of the Icelandic collector Nielsen is written 'Nielson' throughout.]

Vol. III. (1903).

P. 51. *Merops persicus* Pall. Measurements omitted. This is also the case on p. 303.

P. 66. *Caprimulgus ægyptius* Licht. See Mr. H. E. Dresser's remarks on these eggs (with which I am quite in agreement) in his 'Eggs of the Birds of Europe,' p. 449.

P. 142. *Gecinus vaillanti* (Malh.). Three eggs from Kef Laks collected by Tristram and Salvin, and separately catalogued, formed part of a single clutch of seven eggs (see 'Ibis,' 1859, p. 315; Ooth. Wolleyana, i. p. 187).

P. 143. *G. canus* (Gm.). Two eggs catalogued as from "Russia" are marked "Krain" (*i. e.*, Carniola in Lower Austria).

[Among less important misprints may be noted: 'Dart' for 'Dort' (p. 47, l. 6 from above); 'Ruckheil' for 'Ruckbeil' (p. 78, l. 3 from above); fig. 17 for fig. 18 (p. 228).]

Vol. IV. (1905).

P. 63. *Panurus biarmicus* (L.). "Hornsea, Norfolk" is apparently a mistake for Horsey, Norfolk. Hornsea Mere (where this species has recently been introduced) is in Yorkshire, but there is no reason to think that the eggs were taken there.

P. 112. *Cichloselys sibiricus* (Pall.). See Hartert, Vögel pal. Fauna, i. p. 645, where it is stated that there is no ground for the statement that this species breeds on the Koko-nor. The skins collected at this locality with the eggs were sent to the Tring Museum, from whence some of the eggs passed into Mr. Crowley's possession.

P. 144. *Cyanecula cyanecula* (Wolf). The five eggs from Belgium (Salvin-Godman coll.) were not taken (as stated) by C. B. Wharton and H. Seebohm, but by J. Baker in 1856, twenty years before Seebohm's visit.

For "May 10th" in the fourth entry under this head read "May 18th."

P. 146. *Aedon luscinia* (L.). The egg from Parnassus, taken by Seebohm and Krüper is not that of this species, but the Common Nightingale, *A. megarhyncha*. The Northern Nightingale does not breed in Greece.

P. 167 and 171. *Saxicola stapazina* (L.) and *S. melanoleuca* (Güld.). These two supposed species are now known to be merely dimorphisms, and should be united. This also applies to the Western race (*S. caterinæ* and *S. occidentalis*).

P. 170. *Saxicola lugens* Licht. The eggs figured and described under this title appear to be all erroneously identified. All the eggs collected and carefully identified by Koenig, Rothschild, Hartert, and myself in Algeria are of quite a different type, having a pale bluish or bluish-white ground, like the eggs of *S. leucura*. No reference is given to the excellent figures of a genuine clutch in the Journ. f. Ornith. 1896, tab. vii. fig. 4, which differ widely from that given on plate vii. fig. 6 of the 'Catalogue.'

P. 179. *Locustella luscinoides* (Savi). For "5 Hungary, 6th June" read "5 (clutch) Velencze, Hungary, 16th May (F. A. Cerva)."

P. 180. *Acrocephalus aquaticus* (Temm.). For "Anklam, 5th June" read "Mark Brandenburg, 30th May."

P. 185. *A. streperus* (Vieill.). Among the eggs collected by Tristram and Salvin in Algeria were some which were ascribed by them to *A. aquaticus*. The writer of the 'Catalogue' in my opinion quite rightly recorded them under the title of *A. streperus*, to which the three eggs from Zana undoubtedly belong and probably the others also. The original finders' identification should, however, have been recorded in brackets. On examining these eggs in July 1913 I find they have been transferred to *A. aquaticus*.

P. 212. *Sylvia orpheus* Temm. In the description of the eggs of this species the writer has overlooked the fact that

eggs of the Eastern race (*crassirostris*) from the Balkan Peninsula, Asia Minor, Palestine, etc., differ considerably in appearance from those of the Western race, and can generally be distinguished at a glance.

P. 214. *S. mystacea* Ménétr. The first two citations in the synonymy given do not apply to this species, but refer to Bowman's Warbler. On p. 215 for "Bowman's Warbler" read "Ménétries' Warbler."

P. 294. *Pomatorhynchus tickagra* (Vieill.). The eggs figured (pl. xiii. f. 10) and described under this name are not those of the Hooded Shrike or any species of the genus *Pomatorhynchus*, but obviously are those of a species of *Lanius*. That taken by Tristram is the egg of *L. algeriensis*. The statement in the footnote is also erroneous, as Bree's figure represents the egg of this species correctly. This error has already been pointed out by H. E. Dresser in his 'Eggs of the Birds of Europe,' p. 295.

P. 304. *Lophophanes cristatus* (L.). Under this name are catalogued four eggs from Gibraltar taken by Colonel Irby (from the Seebohm collection). Although Irby marked these eggs in ink as "Creeper" quite correctly, his identification has been ignored, and the eggs catalogued as Crested Tits, though any confusion between the nests of the two species would be impossible to a field-naturalist. They are really the eggs of the Spanish race of the Short-toed Creeper, *C. brachydactyla ultramontana*, and agree perfectly with other eggs of this species in my collection from the same locality.

In the first entry under this heading delete "Rossshire" and substitute "Probably Spey Valley" (see 'A Fauna of the Moray Basin,' i. p. 256).

P. 326. *Certhia familiaris* L. At least one entry under this title, that from "S. Spain (H. Saunders)," does not belong to this species, but to *C. brachydactyla*.

[Among minor misprints in this volume, for Dr. H. 'Collart' read 'Coltart' (p. 40, l. 20 from below); for

'p. 177' read 'p. 117' (p. 45, l. 2 from below); for 'tab. 74' read 'tab. 75' (p. 126, l. 28 from below; *Larvivora brunnea* (no. of eggs not stated) p. 150, also on p. 293; for 'Phyllopneuste' read 'Phylloneuste' (p. 219, l. 17 from below); for 'p. 28' read 'p. 40' (p. 306, l. 27 from below); for 'p. 306 (1899)' read 'p. 196 (1889)' (p. 323, l. 5 from above).]

Vol. V. (1912).

P. 82. *Motacilla melanope* Pall. The statement that erythristic colouring is not observable in eggs of the Western form of Grey Wagtail may be true of the Museum series, but is incorrect as a general statement, as erythristic eggs have been recorded of the Western form both from England and the Continent.

P. 85. *M. flava* L. It is incorrect to state that eggs of the Blue-headed Wagtail are indistinguishable from those of *M. boarula*. Possibly in rare cases the distinctions are not very apparent, but, as a rule, the eggs are readily distinguishable. Three clutches of eggs from S. Spain and four from Algeria are included in error under this heading, and should have been catalogued under *M. cinereocapilla*. Breeding birds shot from the nest in Algeria by Mr. F. R. Ratcliff and in S. Spain by Mr. W. M. Congreve had all the characters of the latter race. It should be noted that Colonel Irby (Ornith. of the Straits of Gibraltar, 2nd edit. p. 114) distinctly states that *M. cinereocapilla* was nesting near Casas Viejas (where one of the clutches in question was obtained) in May.

P. 87. *M. cinereicapilla* (sic). Two sets of eggs from Tunisia are rightly included here, but the same can scarcely be said of the eggs from the Kirghiz Steppes and Lenkoran, both of which localities lie far outside the breeding-range of this race.

P. 95. *Anthus striolatus* Blyth. The figure (pl. v. fig. 15) and description are taken from two eggs from the Nilghiri Hills, presumably taken by Miss Cockburn,

and which formed part of the Hume collection. Hume and Oates, however, ignored them in the 'Nests and Eggs of Indian Birds.' No nest of this species has ever been recorded from southern India, but it has been found breeding at about 6000 ft. in Assam by Mr. E. C. Stuart-Baker. It is unfortunate that an egg with so dubious a pedigree should have been selected for illustration.

P. 114. *Rhamphocorys clot-bey* (Bp.). Here again the figure (pl. vi. fig. 16) and description are taken from a clutch of eggs purchased by Mr. Radcliffe Saunders from a dealer, and purporting to have been taken by P. Spatz in Algeria. I am informed by Mr. Rothschild and Dr. Hartert that Herr Spatz never visited Algeria before 1912, and that the only eggs of this species which have been obtained are the two taken by Koenig in 1893, a clutch of two or three eggs taken by Spatz and sold by him to Koenig, and those in the Tring Museum taken in 1913. These all agree in being marked with reddish on a white ground, and bear no resemblance whatever to the egg here figured, which is evidently that of some form of Crested Lark.

P. 123. *Melanocorypha sibirica* Gm. Kazan is not in E. Roumelia as stated, but in E. Russia. Moreover, the White-winged Lark does not breed in the Balkan Peninsula.

P. 130. *Calandrella brachydactyla* (Leisl.). Two eggs, without data, from the Crowley bequest are said to come from [Germany]! It is only known in Germany as a rare straggler to Heligoland, and recorded from near Mainz.

P. 139–140. No reliance can be placed on the authenticity of the Crested Larks' eggs from Spain and North Africa as *G. theklæ* breeds in the same districts, and the birds were not distinguished by the collectors. Nearly all the eggs catalogued under the heading *Galerida macrorhyncha* Tristr. were obtained on the high ground near Ain Djendeli, where *G. cristata macrorhyncha* does

not exist, and *G. theklæ* is the commoner species. Unfortunately, three of these eggs have been figured.

[P. 193. *Linaria hornemanni* (Holb.). It is very questionable whether eggs of the Icelandic Redpoll should be assigned to this species. Hantzsch described the Iceland bird as a distinct race, but it is barely distinguishable, if at all, from *Linaria linaria* (L.).]

P. 219. *Carpodacus erythrinus* (Pall.). Four eggs are said to have been taken at Sayn, Rhenish Prov., S. Germany! The only district of Germany in which this species breeds is in the north of East Prussia, though it is said to have formerly nested in Silesia. There is no evidence of its ever having bred in western Germany, and Le Roi states that it has not been recorded from the Rhine Province.

P. 257. *Calcarius lapponicus* (L.). The eggs from Iceland (W. Proctor) were probably bought by him during his visit, as this species has never been known to breed there.

P. 466. *Corvus corniæ* L. A clutch of three eggs assigned to this species, together with an egg of *Coccystes glandarius*, are said to have been taken in South Spain (Radcliffe Saunders coll.). As the Hooded Crow is a rare vagrant during the winter months only to Spain, it is incredible that the eggs should be those of this species. Mr. Ogilvie-Grant has suggested that the nest may have been taken in the Balearic Isles (which can hardly be described as "South Spain"), but unfortunately for this supposition there is no evidence that either the Hooded Crow or the Great Spotted Cuckoo has ever occurred on these islands. The statement that the Hooded Crow was found breeding there by Von Homeyer is based on error. The eggs may possibly be those of *C. corone*, which breeds rather sparingly in southern Spain. No collector's name is given, and the eggs were obtained through a German dealer.

[P. 491. Of three clutches of eggs of Jay from the same locality (Lenkoran, Talish), two are assigned to

Garrulus caspius and the third to *G. krynicki*. The last should be queried (?), as the lowlands of the Talysch are the home of *G. caspius*.]

[Among the less important misprints are the following: on p. 403, l. 5 from below, for 'Lemback' read 'Lembach'; p. 424, l. 12 from above, for 'Waschbunk' read 'Waschbank'; p. 428, l. 29 from below, for 'Cerwa' read 'Cerva'; p. 473, l. 2 from below, for 'Anderach' read 'Andernach'; p. 490, l. 11 from above, for 'Eleubf' read 'Elbeuf.']

XXX.—*Notes and Observations on the Painted Snipe* (Rostratula capensis) *in Ceylon.* By J. O. Beven, B.A. (Christ's College, Cambridge).

The genus *Rostratula*, consisting of only three species, has a wide distribution in the world, and has attracted some attention, owing to the fact that its members afford an example of a typical sexual dimorphism, the females of all three species being more conspicuous than their mates, both as regards size and plumage.

Common though this "superiority" of the female is among the Insects and some other Invertebrate groups, it is extremely rare among Birds, and Darwin, in the 'Descent of Man,' quotes the Painted Snipe as an example of it.

The females of the genus *Turnix*, of two species of Phalarope (*P. hyperboreus* and *P. fulicarius*), of the Cassowary (*Casuarius*), and of one or two other birds, excel their mates as regards size, but in none of them is the difference between the sexes so marked as it is in *Rostratula*, where, in addition, the females are very much more brightly coloured and also possess a more complicated arrangement of the trachea than do the males.

There are three known species of *Rostratula*: *R. australis*, inhabiting the Australian region; *R. semicollaris*, found in Patagonia, Chili, and other parts of South America; and *R. capensis*, the only one which I have had the opportunity